

WHAT IS CLAIMED IS:

1 1. A ball screw device comprising:
2 a screw shaft of which an outer peripheral surface is
3 formed with a helical screw groove;
4 a nut of which an inner peripheral surface is formed with
5 a helical screw groove corresponding to the helical screw
6 groove of said screw shaft;
7 a helical circulation path defined by the two helical
8 screw grooves;
9 a multiplicity of balls so disposed in said helical
10 circulation path as to be capable of rolling; and
11 a plurality of spacers,
12 wherein each spacer is disposed between two adjacent
13 balls and has two concave surfaces facing respectively to said
14 two balls, and
15 a section of each of the concave surfaces of at least one
16 spacer is shaped such that a central portion is rectilinearly
17 connected to an outer edge of the spacer.

1 2. A linear motion device comprising:
2 an outer member;
3 an inner member facing said outer member via a gap;

4 a multiplicity of balls disposed between said outer
5 member and said inner member; and
6 a spacer interposed between adjacent balls,
7 wherein said spacer has concave surfaces with which said
8 adjacent balls come into line contact.

1 3. A linear motion device comprising:
2 an outer member;
3 an inner member facing said outer member via a gap;
4 a multiplicity of balls disposed between said outer
5 member and said inner member; and
6 a spacer interposed between adjacent balls,
7 wherein said spacer has at least three spaced portions
8 with which said adjacent balls come into contact.